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March 21 -

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An

Inaugural Essay

on

Bilious Colic

By

James R. Spear.

of

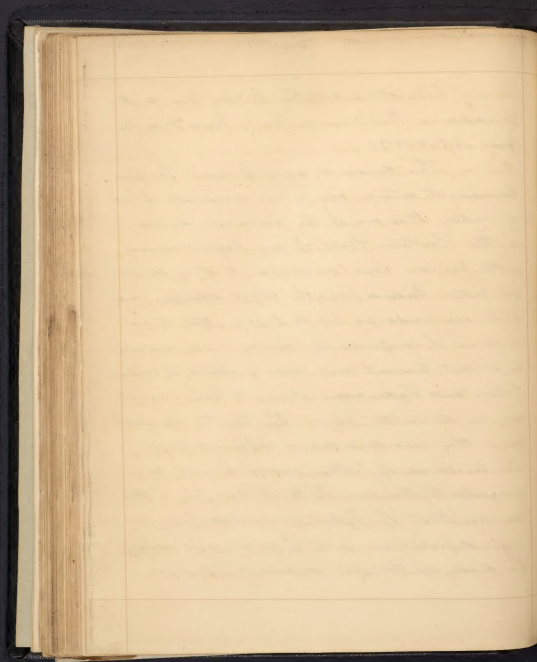
Pennsylvania.

admitted March 22. 1821

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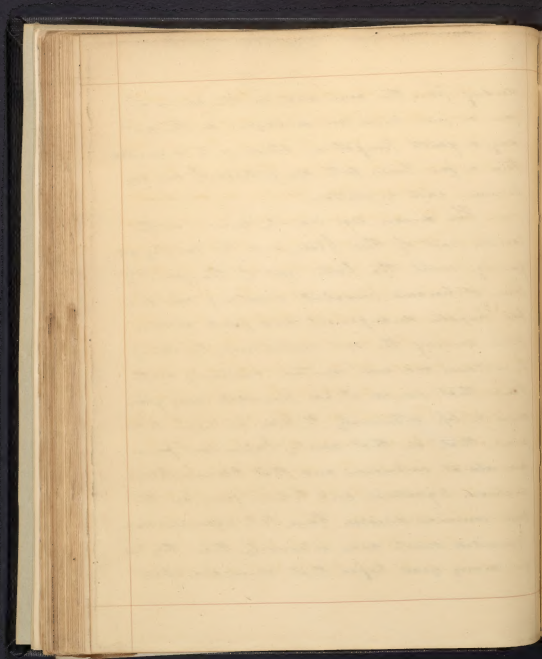
Observations on the Bilious Colic, as it
prevailed in Wotnamland County, Penna. in the
years 1617-18-19-20.

This disease is never Epidemic. Sometimes
however, it extends over a very considerable district
of country. It is one of the seasonal diseases
of the Southern States, of very frequent occurrence.
Little has been said in relation to it, by medi-
cal writers. Indeed from the slight attention paid
to it, we would be led to suppose, that it was
a disease of comparatively rare occurrence, and mild,
or at most, transient and manageable in its nature.
Cullen and Sydenham appear to have seen it,
only in its mildest form. Of this, the remedial
course they recommended, is sufficient proof.
The treatment of Cullen, would certainly be in-
adequate to the cure of the Bilious Colic of this
country; that of Sydenham, is still more stri-
kingly deficient, on point of activity and energy.
He directs, in the first instance, a plentiful



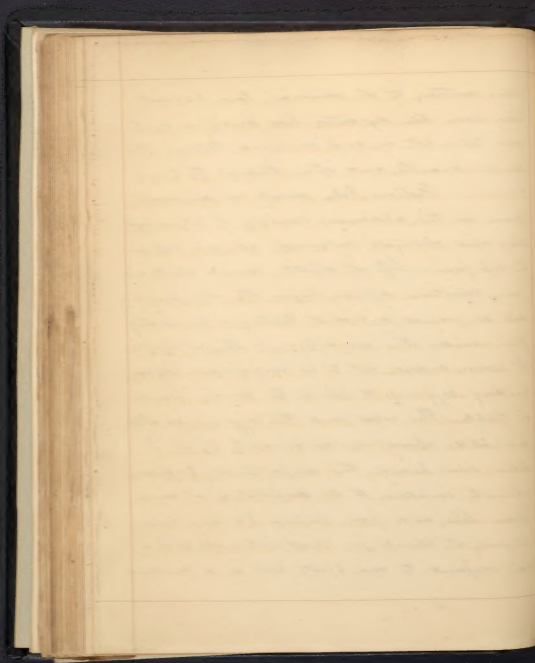
bleeding from the arm; and in the course of four or five hours, an anodyne: on the next day, a gentle purgative; which is to be repeated, three or four times, with an interval of one day between each repetition.

The disease was scarcely known, in the western part of this State, and the country adjoining, until the latter part of the year 1817, when it became prevalent, involving considerable hepatic derangement, and febrile action, often wearing the most violent, and threatening symptoms, and even sometimes occasioning death. Since that period, it has prevailed every year, more or less extensively. It may be proper to remark, that in that country, Intermittent fevers are almost unknown; and that Pleurisy, Pneumonias, Dysenteries, and Bilious fevers, are the most common diseases. Since 1817, Dysenteries have prevailed much more extensively, than they had for many years before that period; and bilious



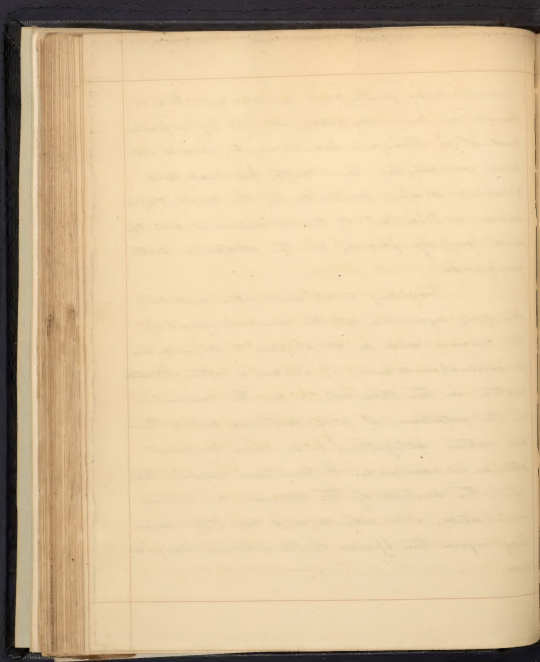
colic, contrary to its common law, has not been seen till dysentery has disappeared; it has then set in, and continued through the winter months, and often through the spring.

Bilious Colic consists in an acute pain in the abdomen, vomiting of bilious matter, and obstinate constipation; attended with more or less fever. Loss of appetite, nausea, chills, and fever, sometimes, appear before the other symptoms, but in general, a violent twisting, or lancing pain under the costal ribs, is the first symptom. It seems, indeed, not to be surpassed in degree, by any suffering, to which the human frame is liable. The robust and the vigorous, are often prostrated, almost instantaneously, by it. I have even heard the unfortunate sufferers, earnestly implore, to be dispatched at once, from life, and from torture. For some time at first, it ceases for short intervals, and is not confined to one spot; but in a few hours



becomes more fixed, and permanent. It is relieved in some measure, at first by pressure; and it is therefore common, to find a patient, on visiting him, with his head and shoulders drawn forwards, by the violent spasmodic contraction of the abdominal muscles, and pressing forcibly on the abdomen with his hands.

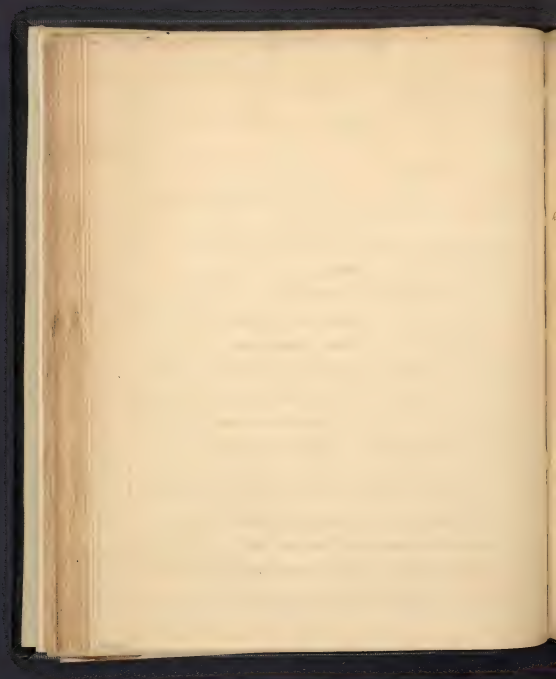
Vomiting is an invariable and very distressing symptom, at the commencement of the disease; and as it appears to depend on a superabundance of bilious, or other vitiated matter in the stomach, or on the constriction of the intestine, it will continue until there are either altogether, or in some measure allured, or removed. It sometimes happens that after the contents of the stomach are entirely evacuated, it is relaxed, and vomiting ceases, long before the spasm of the intestine has given way.



The pulse is full, hard, and frequent, differing in this respect from that of most inflammatory affections of the alimentary canal. In these, generally, it is small, hard, and corded. In some cases, it was of the oppressed character, not being so full, and frequent, and imparting a struggling sensation to the finger, and always rising after blood letting.

The tongue is usually pale, and presents the yellow, furred appearance, common in bilious complaints. I saw it, in one case of uncommon severity, covered over in a few hours after the pain in the abdomen, which was the first symptom, with a great number of small distinct black spots. I have not seen, or heard of the same symptom, in any other case.

In some cases, there was frequent involuntary sighing, and great anxiety, with severe pain in the breast, particularly, under the sternum. These symptoms, as well as the immoderate discharge of



bile, by vomiting, the dull pain in the right
hypochondriac region, and high coloured urine,
indicated that the disease was seated high up
in the intestine; and that there was considerable
derangement of the liver. This derangement may
have consisted merely in an engorgement of its vessels,
accompanying either an increase, or a total suspen-
sion of its natural secretion; as well as inter-
rupting the free, and easy motions of the diaphragm,
from its increased bulk, and weight. That the
affection was not of a very permanent nature, was
proved by the return to the healthy exercise
of its functions, immediately after the more
violent symptoms of colic were ~~ceased~~ removed.

In other cases, there was great difficulty in
passing the urine, and sometimes a total suppression.
Sometimes, there was an acute pain in the re-
gion of the pubis, extending up the abdomen,
and sometimes in the testicles. These latter symp-
toms, though often severe, were always transients.



and indicated, that the disease was seated low down in the intestine, and was not difficult to remove.

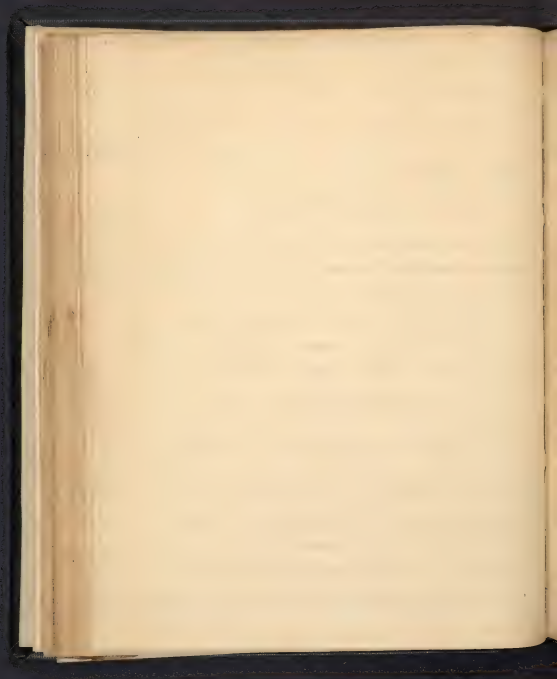
Eructation is an invariable attendant on the disease. It is indeed that symptom to which our remedies are chiefly to be directed; and which, when overcome, leaves the complaint destitute of all its terrors, and its dangers. At some times come on gradually, an unusual rapidity of the bowels having existed for some days, previous to the attack. At others a bilious diarrhoea of that continuance, is the precursor. When a proflage is obtained through the bowels, syphals are generally discharged, with large quantities of bilious matter, of a dark, green, or yellow colour, and foetid smell. In one case a tube, from three to five inches in length was voided, resembling according to the description of the patient, a piece of intestine. Its pain and inflammatory symptoms had been very high in this case,

an intromission had probably occurred, which occasioned the blocking of the confined portion, or it may have been a coat of coagulable lymph thrown off, as in other diseases by extensive inflammation. The patient, however, recovered.

Spasm of the extremities sometimes occurred. In one case, the muscles of the extremities, were most violently contracted; and I have heard of the same symptom occurring in other cases.

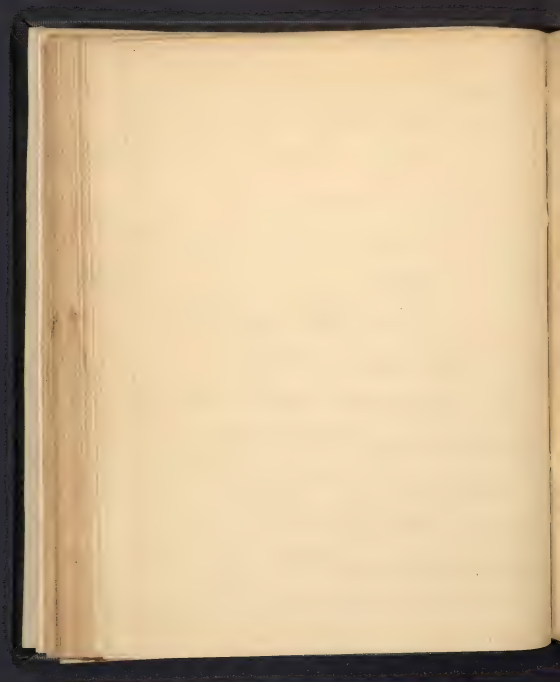
Disordered vision, or total blindness, is said to have attended the disease frequently, but neither have occurred within my experience.

Very young people appear entirely exempt from bilious colic. In 60 or 70 cases, the subjects of them observations, none even under the age of 24. Above that period, every age appears liable to it, though it probably occurred most frequently, between the ages of 24 and 45. Another peculiarity is, that the victims are with few exceptions, persons of the most vigorous, and



healthy constitution. It may not be an adequate
reason to account for this, but as a medical fact,
it is worthy of notice, and may lead to some
useful speculations. It seems probable, however,
from some cause or another, that the intestine
is only capable in such persons, of taking on the
violent, and spasmodic action, in which the
disease consists.

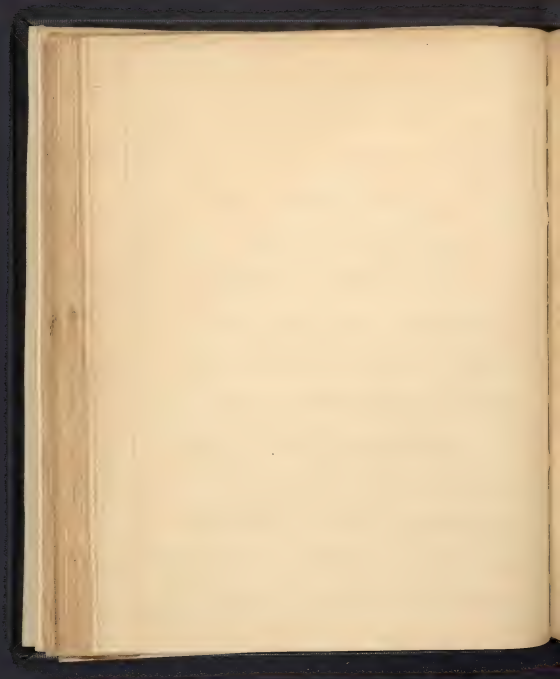
The predisposing causes of Bilious
colic, are the same as those that produce bilious,
and intermittent fevers, and dysenteries.
There appears to be a very intimate connexion
between this disease, and dysentery. They are both
dependant on the same predisposing cause, and
both of a febrile character, with local determina-
tion to the bowels. Perhaps they may both be
considered different forms of the same morbid
action; the system being determined to assume
the one, or the other, according as it is in a
vigorous, or a debilitated state, at the time of



the attack. We find that a high degree of organic
is necessary to the production of bilious colic; there-
fore, during the autumn, when the system has been
reduced, and relaxed by the heat of the preceding
season, and by the operation of the malarious
cause in its full force, bilious colic will not be the
product, but dysentery; and, when the system has
recovered its tone by the bracing and invigorating
seasons of winter, an application of the exciting
causes, will produce bilious colic. If this view
of the subject be correct, bilious colic may be
considered a pent up dysentery, and dysentery,
an open, or unconfined colic. If it be objected
to this opinion, that bilious colic has often pre-
vailed in the same districts, and during the same
seasons with dysentery, it may be answered,
that an infinite variety of circumstances may
have concurred, to produce in different persons,
these different states of the system, which I have
sufficed necessary to the production of the one or the other.

Another proof of the action, may be drawn from the nature of the exciting causes, of the two diseases. The predisposing state of the atmosphere, is generally so powerful as to require little, or no aid, from exciting causes to produce dysentery. In many cases, it comes on when there has been no exposure, and no irregularity, on the part of the patient; whatever; but in the production of dysentery, the system being in a much less degree under the influence of the predisposing cause, a proportional increase of power, is necessary in the exciting cause. And accordingly, we find them of this description.

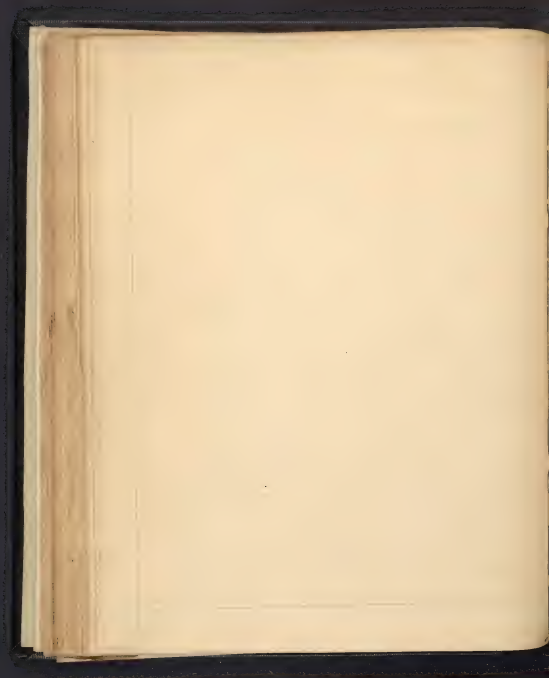
Among the most frequent, is uncommon exposure to cold, and moisture; applied to the system generally, but particularly to the rectum. A large induration of the canal which I saw, was owing to this cause. I have known it come on, from taking a large draught of beer, immediately after rising out of bed in the morning. In many instances it was induced, not in the fall by any other



latter, which had stood for some time in the cap-
sule, in which it had been made. The sub-
stance of copper found in these cases, was
the same as a delinquent article.

Dr. Rushmore supposes the Devonshire blue, which, in
many of the best specimens, very much resembles
indian stone, to be improved by eating a slice of
apple. There was a great abundance, during the
year in which it occurred. Both apples, and in-
deed of an inferior quality, or when taken too early,
in doubt often become the exciting cause of bilious
colic. In many of the cases which will mention the
observation, were clearly traced to drinking cold
and sour cider.

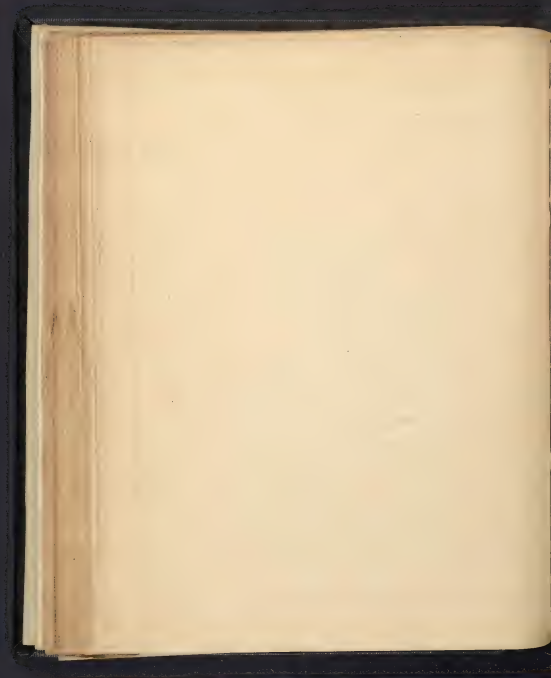
As to the proximate cause of this disease,
there is a general concurrence in the opinion, that it
consists in a spasmodic constriction of some part of
the intestinal canal, and most commonly of the ileum.
This is satisfactorily established, as well by the symptoms
of the complaint, as by dissections after death.



Notwithstanding Belious Colic is a disease that
means to menacing an aspect, a bearing to involve
to much danger to the patient, and to much
difficulty to the practitioner; there is some, perhaps,
even which the resources of our art can afford a more
prompt and striking relief, and a more, in which
the relief, procuring, and grateful use of our
remedies, will certainly ensure a rich reward
of those pleasurable feelings, that are ever atten-
dant on successful efforts to relieve the sufferings
of our fellow beings.

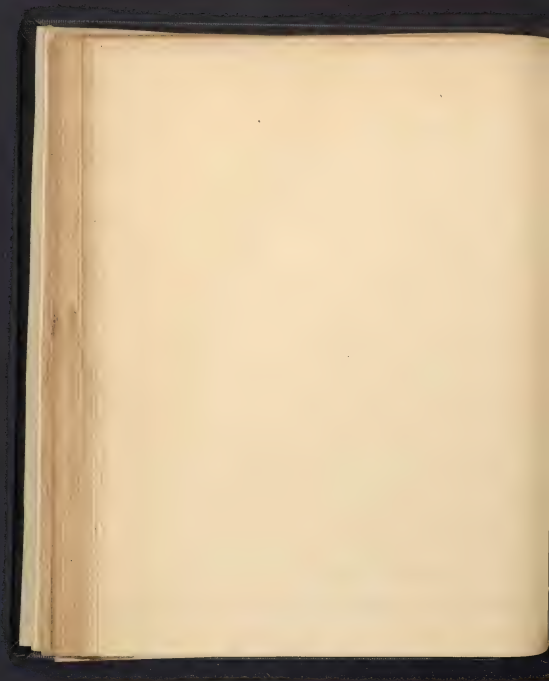
All the symptoms of the complaint, point
to one simple and plain indication: which is
to remove the constriction of the intestine.

With the view, venesection should first be
imposed. 320 or 30 of blood should be drawn at
once; and the operation repeated as often, as the
violence of the dyspepsia may require. In many
of the cases I have seen, it was necessary to ex-
tract 360 or 70 in the course of 24 hours.



The issue is here an invaluable remedy; and, perhaps, many physicians. It is, in short, our best anodyne; relieving pain more effectually, and more safely, than opiate:—our best antispasmodic; calming and allaying the irritability of the stomach; and our best antispasmodic: while at the same time, it checks inflammatory action of the system generally, and more particularly of that part of the system involved in the disease. When venesection has not been freely bled, fear is apt to supervene after the obstruction is removed, inflammation of the intestine sometimes comes on, and the death of the patient is the consequence.

The warm bath is next to be used, as a powerful auxiliary in fulfilling almost all the intentions that are answered by blood-letting. When the symptoms are very urgent, and severe; the patient may first be placed in the warm bath, and then bled; and delirium animi. From this combination some of the best active remedies, the happiest effects are generally experienced. If, however,

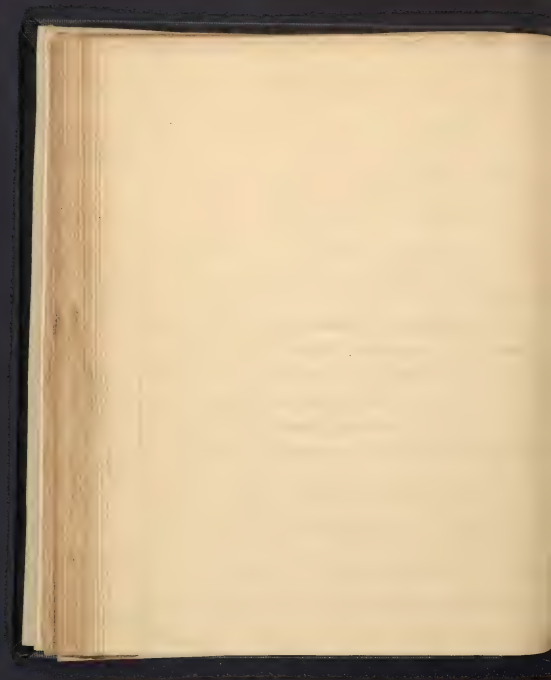


after being taken out of the bath, vomiting be not sufficiently subdued, to admit the administration of medicines by the mouth; as vomels may be given, to correct more effectually, any, foul, or bilious matter, which may keep up the irritation. if it still continues; nausea must be had to the usual antispasmodic remedies, with the exception of opium, which according to my experience, had better be omitted. The offending draught, and lime water and milk, may be tried, fomentations applied to the pit of the stomach, and binarisms to the intestines. If these fail, a large blister may be applied across the abdomen, which will be alike calculated to justify this intention, and to divert inflammation from the convulsed intestine. By these measures the stomach will generally be composed, and as soon as at length, by its own receptive action, it will subside, and give an opportunity for the administration of cathartic medicines.

Of these, the most powerful should at once

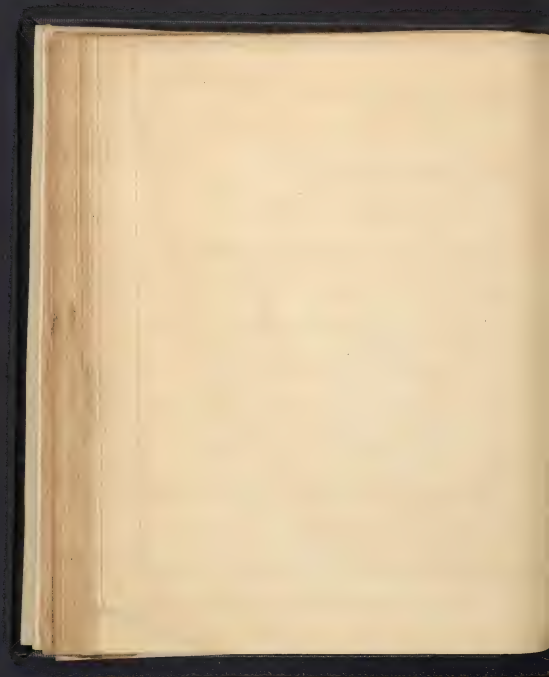


be resorted to. That of the mean class, will be our
first inadequate. Preference should also be given
to such as pass through the stomach with the least
irritation to that organ, and act principally on the
large intestines. And fortunately, some of the most
active cathartics are of this character, as calomel,
aloes, and gamboge. Large doses of calomel either
in powder, or pills, will sometimes answer very well.
It may be given in doses of .15, .20, or 30 grains every
4 hours, ~~or alternately~~ or alternated every 2 hours with
of. cini 3i. The sulphat of Soda I have generally
found to be rejected from the stomach, and to be
useless. The sulphat of magnesia is some-
times of service. Many practitioners have derived
great advantage from combinations of calomel, and
opium, in large doses as 2 or 3 grs of opium, to 10, 15,
or 20 grs of calomel. And in this way, it has been
observed that a double effect was obtained; the
opium overcoming the spasm, and the calomel oper-
ating as a purgative. Having been taught by my



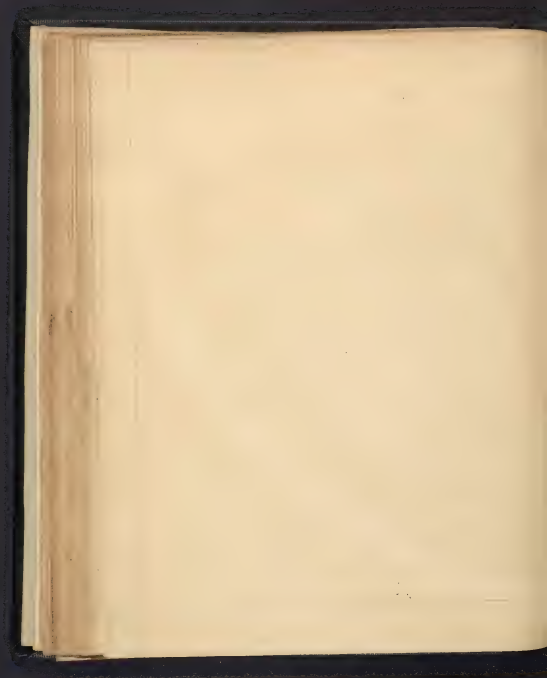
unpleasant to defend. Mercurially or venereal in the dis-
ease, as an antispasmodic; and to deaden the well
known constituting, and inflammatory effects of
Opium, in the commencement of all diseases of an
inflammatory character, I have tried this combina-
tion in but few cases; in those it was not at-
tended with a relaxation of the Spasm, the case
was detained in the indolent stage, for
days; and extreme salivation, and soreness of the
mouth was the consequence. In one case, I feared
I should lose my patient, from the violence of the
mercurial symptoms that followed. It was therefore
for, almost entirely avoided, until after the Spasm
was removed. When it was given before that was
effected, either to relieve pain, or to suppress obstinate
vomiting, it was administered by the rectum.

The combination of calomel with aloes, and gam-
boge, forms one of the most prompt and certain cathar-
tics we possess; and according to my experience, one
bottle calculated to remove the obstruction in bilious

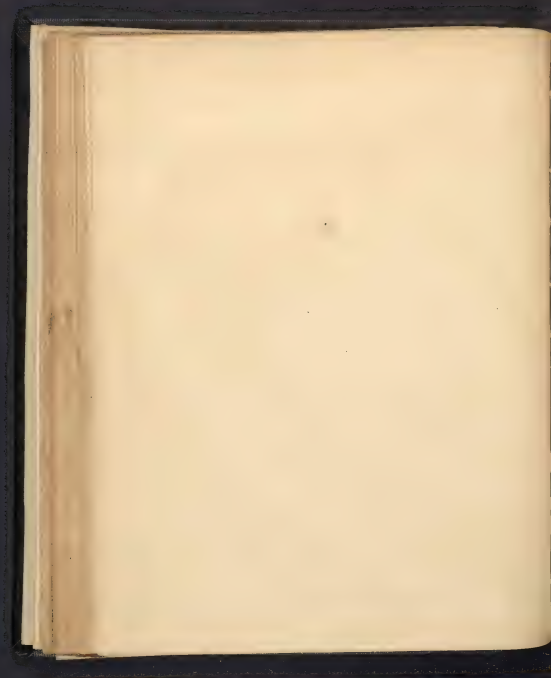


colic. I have found it so efficacious, alternated
with an infusion of fol. Sen, cream tart, and manna,
as to cure it in most cases that have fallen unde-
r my care. The following is the formula of each:
R. Calomel, & Gum. Res. a. a 3i, Gum. Gamboge gr. 11
scrup. q. s. M. L. Pillul. XII.

R. Fol. Sen, & Manna a. a 3ss, Cream Tart, 3ss, ana
cuticulus, ℞. f. infusion. After standing 15 minutes,
it will be fit for use. One of the pills is to be given
every 4 hours, and 2 hours after each pill, 3iv of the
infusion. By the time the infusion is all used, if
the preceding measures have been vigorously pursued, the
bowels will in many cases be moved; if they remain
not, the same course is to be patiently, and perseveringly
continued. It may also be necessary to repeat the bleed-
ing, and the warm bath, and if a blister has not been
applied to arrest vomiting, a large one should now
be laid over the abdomen, extending across the right
hypochondriac region, with a view both to its effect on
the liver and the removal of inflammation in the intestines.

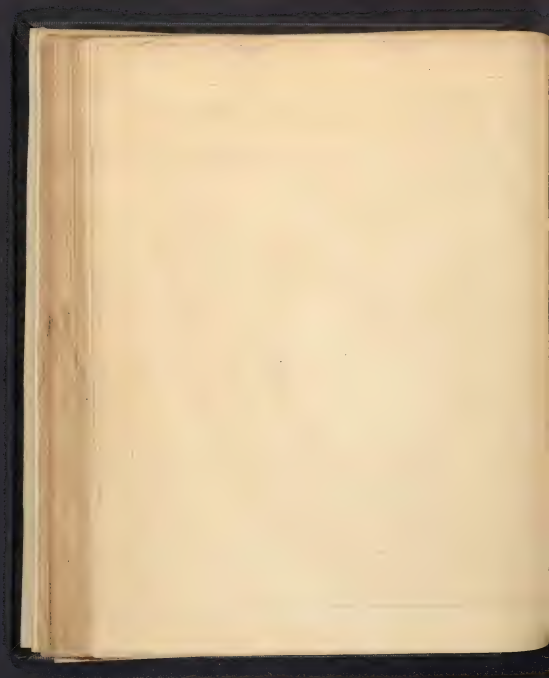


Emetics are highly necessary throughout the whole course of the cure, and though they very often disappoint our expectations; in many cases they will afford prompt, and immediate relief. Much advantage however, is not to be expected from them, unless when used at the same time with active cathartics. The mildest should first be tried. The following will be found very useful. R. Ranziae parvinae, ℥ss, or, of Mercurius lodae aa ʒss aquae peruviae ℥i. The whole of this should be thrown up at once. If more activity is required, ol. emeticum today, Senna, Jalap, and other active medicines may be substituted in place of the above ingredients. The last mentioned ingredients will not be successful. The last ones and tobacco injections are in doubt more powerful than any that have been mentioned, and in cases of very great obstinacy should be resorted to. I have never used them; but if always seen able to move the bowels by some of the remedies above enumerated.



Forecast of the month from the calculus that has been taken, generally occurs about the time of the removal of the obstruction. This happens in so many instances, that a relation seems to exist between the one, and the other, very nearly allied to that of cause, and effect. It is therefore a circumstance not to be deprecated, but to be wished for, as well on this account, as for the beneficial influence it exercises on the liver. Accordingly, forecast of the month, may be looked upon as a certain indication that the sperm is about to yield, and that a natural, and healthy flow of bile will be established.

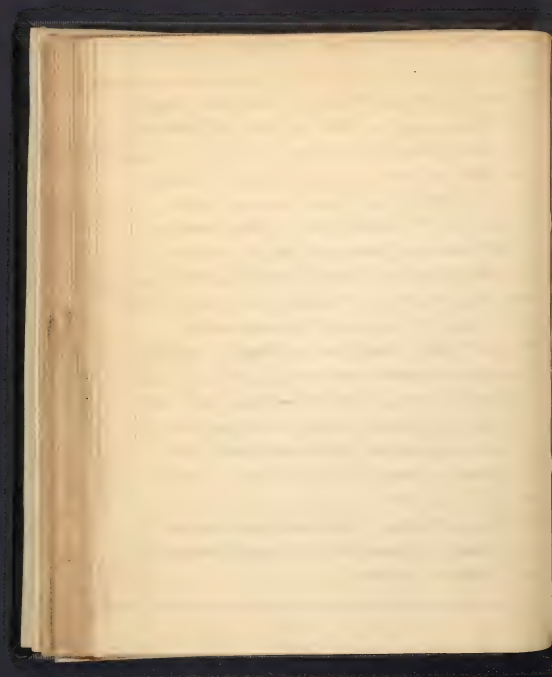
After, however, we have conquered the disease, and rescued our patient from suffering; the greatest caution will be necessary to prevent relapse. It is a most insidious enemy, and will recur often, after the patient is apparently, wholly relieved. This is probably owing to the irritation of reaccumulated bile, poured into the yet tender intestines.



In three fourths of the cases I have seen, relapses took place; and in some of them, two, three, and four times. They will invariably occur, in considerable degree of exposure. Exposure in sleep, and sitting, are a frequent cause. I have known a relapse to follow, from the patient having been out in a slight shower of rain; from sitting a short time on the cold ground; from walking with bare feet on a cold floor; from taking a draught of cold beer, or cold water; and many other causes of the same nature.

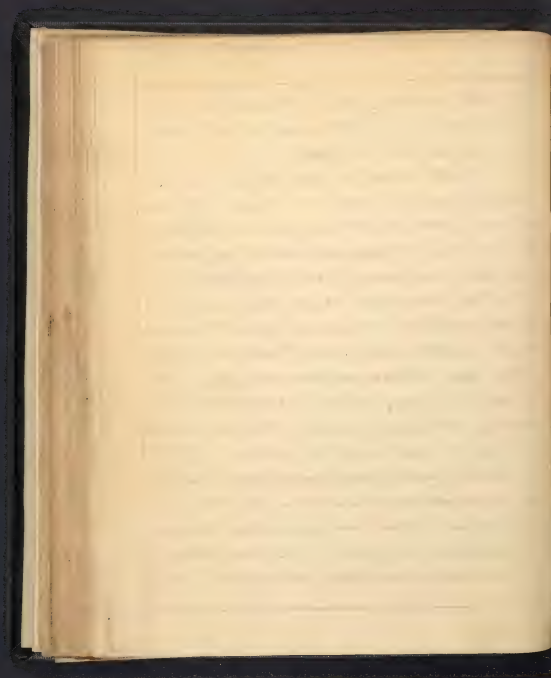
It was therefore considered necessary, in most cases, to continue purgative medicines for three or four days, giving an anodyne pill at bed time; after which some tonic preparation should be directed, for the purpose of giving strength to the debilitated constitution. The following will be found to answer that purpose very well.

R Gentian, Balsam, Capentanae Virginianae. aa ʒij
Cast Polach, ʒii Rad Rhei ʒii, aqua bullientis ʒxii
coch; o ʒa h. for decur.



The following case illustrates the nature of this disease, and the success of the treatment recommended in this essay.

M. B. About 45 years of age, previously healthy, had been exposed to much fatigue, and night air, with his feet and legs, cold and damp. He had been ten days ill without any obvious aggravation, complaining at first of luttleness, tenderness of the bowels, slight head ache, and deficient appetite: afterwards of severe pain about the umbilicus, and violent vomiting, which continued for two, or three days. He had been bled sparingly, and taken two doses of purging medicine, and 3℥ of crude mercury, with many injections. The pulse was full, and firm; the pain across the umbilicus ^{exacerbating;} was ^{extending} lying to the right hypochondriac region, with a sense of weight, and uneasiness in the Sternum. Thirty ounces of blood were immediately taken, and a tea cupful of the infusion of Gum, Green Teas, and manna, directed every 3 hours, with a pill of calomel



also, and gamboge, 1/2 lb. after each dose of the infusion. This was ordered at 12 o'clock in the day; at bed time, no relief was experienced. Shortly, his countenance of blood were drawn while the patient was in a warm bath; delirium ensued; he was taken out, and had a small purgative from the bowels, containing a few drops of the mercury. The patient was put to bed, and a large blister applied over the abdomen, and 30 grs of calomel administered; frequent injections were also given. In the morning, things remained as at bed time. The patient took 3iv of castor oil. After a few hours, relief not being obtained, he was placed in the warm bath, up to the arm pits; a vein opened, and twenty ounces of blood drawn; when delirium again ensued. During this, complete relaxation of the stricture took place, and shortly afterwards, a purgative of hard excruciating, with loose matter of a dark green color offensive to the smell, and mixed with the mercury. During the day, the stools

were copious, offensive, and dark brown, occasion-
ally mixed with green matter. Purgative medicines
were directed for a few days, and afterwards a
tonic preparation. The patient speedily recovered,
with a slight intermission, occasioned by an in-
temperate indulgence in improper food.

Physick

and when the patient is in a
state of great weakness
and the pulse is very small
and the patient is very
sensible to cold and heat
and the patient is very
sensible to cold and heat
and the patient is very
sensible to cold and heat